

ABSTRACT

A method is disclosed for producing a high-resolution patterned layer on a substrate for use in making electronic devices. The method comprises micro-printing an inked pattern on a 5 substrate with use of a rotatable stamp; passing the substrate to an apparatus for etching or depositing materials on the substrate, where the inked pattern guides the etching or deposition of material; and then optionally removing the inked pattern from the substrate with the application of heat, ultraviolet light, or wet chemical means. A high-quality transistor with a 2-micron channel length may be fabricated using the inventive method. The method is compatible with 10 rapid, reel-to-reel patterning and useful for a range of applications.

100
99
98
97
96
95
94
93
92
91
90
89
88
87
86
85
84
83
82
81
80
79
78
77
76
75
74
73
72
71
70
69
68
67
66
65
64
63
62
61
60
59
58
57
56
55
54
53
52
51
50
49
48
47
46
45
44
43
42
41
40
39
38
37
36
35
34
33
32
31
30
29
28
27
26
25
24
23
22
21
20
19
18
17
16
15
14
13
12
11
10
9
8
7
6
5
4
3
2
1